DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

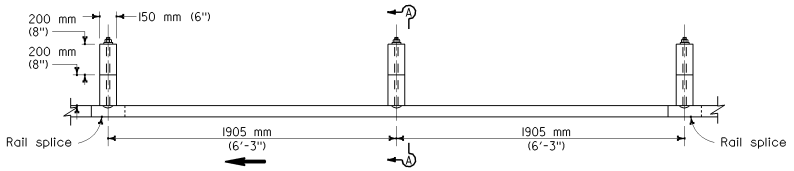
Ellis K. Hirst
REGISTERED CIVIL ENGINEER

July 1, 2002
PLANS APPROVAL DATE

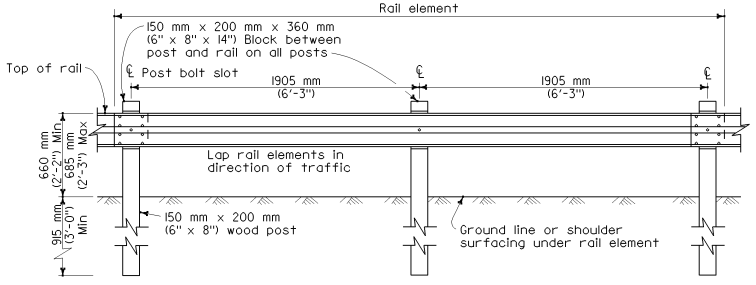
REGISTERED PROFESSIONAL ENGINEER — Ellis K Hirst — No. C17926 — Exp. 6-30-05 — CIVIL — STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness or electronic copies of this plan sheet.

Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov

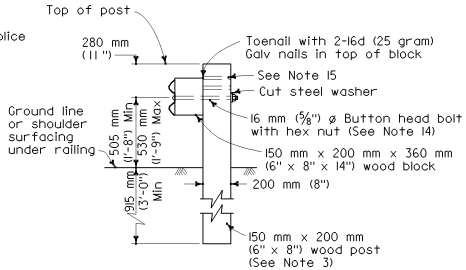


PLAN



ELEVATION

METAL BEAM GUARD RAILING WITH WOOD POST AND BLOCKS

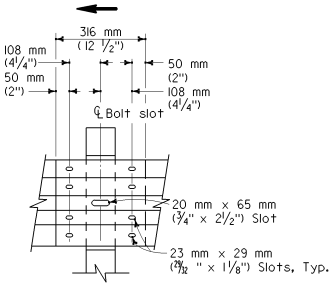


Post spacing 1905 mm (6'-3") C-C

SECTION A-A

TYPICAL WOOD LINE POST INSTALLATION

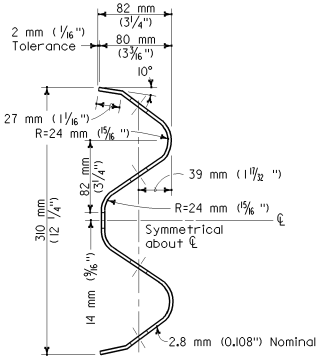
See Note 4



ELEVATION

RAIL ELEMENT SPLICE DETAIL

16 mm ø x 35 mm (5/8" ø x 1 3/8") button head oval shoulder bolts inserted into the 23 mm x 29 mm (29/32 " x 1 1/8") solts and bolted together with 16 mm ø x 35 mm (5/8" ø x 1 3/8") recessed hex nuts. Total of 8 bolts and nuts are to be used at each rail splice connection. The ends of the rail elements are to be overlapped in the direction of traffic (see details). Where a terminal section or end section is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



SECTION THRU RAIL ELEMENT

NOTES

1. For details of steel post and wood block installations, see Standard Plan A77AA.
2. For details of standard hardware used to construct guard railing, see Standard Plan A77B.
3. For details of wood posts and wood blocks used to construct guard railing, see Standard Plan A77C.
4. For additional installation details, see Standard Plan A77FA.
5. Guard railing post spacing to be 1905 mm (6'-3") center to center, except as otherwise noted.
6. For guard railing typical layouts, see Standard Plans A77D and A77E.
7. For embankment widening details to accommodate guard railing terminal system end treatments, see Standard Plan A77F.
8. For Typical terminal system end treatments, see Standard Plans A77L, A77M and A77N. For type of terminal system to be used, see Project Plans.
9. For guard railing terminal anchor details, see Standard Plans A77G, A77I and A77IA.
10. For guard railing connection details to bridge railing, retaining walls and abutments, see Standard Plan A77J.
11. For guard railing connection details to bridge sidewalk curbs, see Standard Plan A77K.
12. For dike positioning with guard railing installations, see Standard Plan A77F.
13. Direction of traffic indicated by ➡ .
14. Where conditions require the bolt to be installed in the opposite direction from that shown in Section A-A or where a 16 mm (5/8") threaded rod is required in place of the bolt, no more than 13 mm (1/2") of thread to be exposed on the traffic side of the rail element.
15. Additional holes in wood post are required for potential adjustments of railing height. See Standard Plan A77C.
16. For guard railing delineation details, see Standard Plan A77F.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL WOOD POST WITH WOOD BLOCK

These "Standard Plans for Construction of Local Streets and Roads" contain units in two systems of measurement: International System of Units (SI or "metric") and United States Standard Measures shown in the parentheses ( ). The measurements expressed in the two systems are not necessarily equal or interchangeable. See the "Foreword" at the beginning of this publication.

NO SCALE

A77A